

REMARKS

This is a full and timely response to the non-final Office Action mailed September 19, 2005. Upon entry of the amendments in this response, claims 1 – 15 and 19 are pending. In particular, Applicants have amended claims 1 and 12, and have added claim 19. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Examiner Interview

Applicants appreciate the courtesy the Examiner extended to Applicants' attorney in the telephone discussion of May 31, 2006. The discussion addressed the rejections set forth in the final Office Action mailed March 2, 2006.

Specifically, Applicants set forth a number of proposed claim amendments which were discussed with the Examiner in view of the cited art. Although allowable subject matter was not agreed upon, Applicants believe that certain important issues were identified during the telephone discussion and that they are resolved herein. Specifically, Applicants have further defined the claimed multiple helical profile of claim 1 as suggested in the Office Action (pg. 13) and in the telephone discussion of May 31, 2006. Additionally, Applicants have included features directed to the centering section of the press fit fastener, as well as the conical portion of the press fit fastener which are believed to be distinguishing over the cited art.

II. Claims 1 – 7, 9, 10 and 15 are Patentable Over *Damm*

The Office Action rejected claims 1 – 7, 9, 10 and 15 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,645,386 to Damm (“*Damm*”). For the reasons set forth below, the rejection should be withdrawn and the claims allowed.

Independent Claim 1

Independent Claim 1, as amended, recites:

1. A press fit fastener, comprising:
 - a shank having an axis a first end and a second end;
 - a head being located at the first end of said shank; and
 - a press fit portion being located at said shank, said press fit portion having an outer diameter and including a multiple helical profile, said multiple helical profile having fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank, ***said helical profile having a beginning portion and an inclination portion having an increasing outer diameter, the outer diameter of said inclination portion being designed to increase in a direction towards said head to reach a maximum outer diameter, the maximum outer diameter of said inclination portion being spaced apart from said head; and***
 - a centering section having an outer diameter, said centering section being located next to said beginning portion of said helical profile, the outer diameter of said centering section being smaller than the minimum outer diameter of said helical profile in the beginning portion; and
 - a conical portion having an outer diameter, said conical portion being located next to said centering portion, said conical portion being designed and arranged to taper in a direction towards said second end such that the diameter of said conical portion increases towards said centering section.***

(*Emphasis added*). Applicants respectfully submit that independent claim 1 patently defines over *Damm* for at least the reason that *Damm* fails to disclose, teach, or suggest the features emphasized in bold text above.

Applicants submit that claim 1 patently defines over *Damm* for at least the reason that *Damm* does not disclose, teach, or suggest the feature of “***a conical portion having***

an outer diameter, said conical portion being located next to said centering portion, said conical portion being designed and arranged to taper in a direction towards said second end such that the diameter of said conical portion increases towards said centering section” as recited in claim 1.

At most, *Damm* discloses a “transition region 20” near the beginning portion of the helical profile. Even assuming, *arguendo*, that this could be argued to be a “centering section,” *Damm* does not disclose, teach, or suggest a “conical portion located next to said centering section” as recited in claim 1. Using the centering portion with the conical portion serves to simplify axial insertion of the press fit fastener into a corresponding bore. These features can be particularly advantageous in combination with a fastener having the claimed multiple helical profile. Specifically, among other benefits, using the centering portion with the conical portion serves to simplify axial insertion of the press fit fastener into a corresponding bore.

Further, as previously set forth, Applicants respectfully maintain that *Damm* fails to disclose both of the claimed elements of a “beginning portion” and an “inclination portion.” That is, claim 1 includes these two distinct features, yet the Office Action continues to view these as a single portion. Thus, Applicants maintain that even assuming, *arguendo*, that the “beginning portion” is disclosed by *Damm*, any remaining portion does not meet the recited features of the “inclination portion.”

Accordingly, claim 1 patently defines over *Damm* for at least the additional and independent reason that *Damm* does not disclose, teach, or suggest the feature of an ***“an inclination portion having an increasing outer diameter, the outer diameter of said***

inclination portion being designed to increase in a direction towards said head to reach a maximum outer diameter,” as recited in claim 1.

Accordingly, for at least these reasons, Applicants submit that the rejection to claim 1 should be withdrawn and the claim allowed. Furthermore, because independent claim 1 patently defines over *Damm*, dependent claims 2 – 15 and 19 are allowable over *Damm* as a matter of law for at least the reason that claims 2 – 15 and 19 contain all the features and elements of their corresponding independent claim. See, e.g. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Dependent Claims 2 – 7, 9, 10 and 15

Applicants submit that the 35 U.S.C. § 102 rejection to claims 2 – 7, 9, 10 and 15, as anticipated by *Damm*, is rendered moot in light of any of the arguments made above and, therefore, claims 2 – 7, 9, 10 and 15 are allowable as a matter of law for at least the reason that claims 2 – 7, 9, 10 and 15 contain all the features and elements of their corresponding independent claim 1. For at least this reason, Applicants request that the rejection of claims 2 – 7, 9, 10 and 15 be withdrawn.

III. Claims 1 – 8 and 10 – 13 are Patentable Over *Waltermire*

The Office Action further rejected claims 1 – 8 and 10 - 13 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 3,252,495 to Waltermire (“*Waltermire*”).

Independent Claim 1

Independent Claim 1, as amended, recites:

1. A press fit fastener, comprising:
 - a shank having an axis a first end and a second end;
 - a head being located at the first end of said shank; and
 - a press fit portion being located at said shank, said press fit portion having an outer diameter and including ***a multiple helical profile, said multiple helical profile having fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank***, said helical profile having a beginning portion and an inclination portion having an increasing outer diameter, the outer diameter of said inclination portion being designed to increase in a direction towards said head to reach a maximum outer diameter, the maximum outer diameter of said inclination portion being spaced apart from said head; and
 - a centering section having an outer diameter, said centering section being located next to said beginning portion of said helical profile, the outer diameter of said centering section being smaller than the minimum outer diameter of said helical profile in the beginning portion; and
 - a conical portion having an outer diameter, said conical portion being located next to said centering portion, said conical portion being designed and arranged to taper in a direction towards said second end such that the diameter of said conical portion increases towards said centering section.***

(*Emphasis added*). Applicants respectfully submit that independent claim 1 patently defines over *Waltermire* for at least the reason that *Waltermire* fails to disclose, teach, or suggest the features emphasized in bold text above.

For example, *Waltermire* does not disclose, teach, or suggest a press fit portion having “***a multiple helical profile, said multiple helical profile having fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank***” as recited in claim 1.

The Office Action apparently alleges that *Waltermire* discloses a “multiple helical profile” by the “knurled shank” (e.g. the portion of the fastener formed by “knurling 11”).

However, Applicants have further amended claim 1 to further clarify that the claimed helical profile has “fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank.” Applicants submit that not only are the two structures physically dissimilar, but the structures also operate in different manners and produce different results. Furthermore, the substitution of one over the other is not an obvious replacement for the other, and the use of the claimed “multiple helical profile” has several advantages over the rings of *Waltermire*.

For example, on pg. 4 lines 5 – 12 of the application, Applicants have already made some of these distinctions, specifically when introducing such a knurled element into a bore of a component, the surface of the bore and/or of the stud is damaged due to the spaced apart knurled elements of the knurled portion, severely hindering the ability for the stud and/or the component to be reused. These drawbacks have been explained in background section of the specification in great detail with respect to other prior art having a knurled portion. Thus,

Applicants submit that the knurls of *Waltermire* are not at all equivalent to the claimed “multiple helical profile.” Accordingly, *Waltermire* does not disclose, teach, or suggest at least the feature of a press fit portion including “***a multiple helical profile, said multiple helical profile having fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank***” as recited in claim 1.

Accordingly, for at least these reasons, Applicants submit that the rejection to claim 1 should be withdrawn and the claim allowed. Furthermore, because independent claim 1 patently defines over *Waltermire*, dependent claims 2 – 15 and 19 are allowable

over *Waltermire* as a matter of law for at least the reason that claims 2 – 15 and 19 contain all the features and elements of their corresponding independent claim. See, e.g. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Dependent Claims 2 – 8 and 10 – 13

Applicants submit that the 35 U.S.C. § 102 rejection to claims 2 – 8 and 10 – 13, as anticipated by *Waltermire*, is rendered moot in light of any of the arguments made above and, therefore, claims 2 – 8 and 10 – 13 are allowable as a matter of law for at least the reason that claims 2 – 8 and 10 – 13 contain all the features and elements of their corresponding independent claim 1. For at least this reason, Applicants request that the rejection of claims 2 – 8 and 10 – 13 be withdrawn.

IV. Claims 1- 7 and 9 - 11 are Patentable Over *Hartmann*

The Office Action further rejected claims 1 – 7 and 9 - 11 under 35 U.S.C. §102(b), or in the alternative under 35 U.S.C. 103(a), as allegedly being unpatentable over U.S. Patent No. 6,264,414 to Hartmann (“*Hartmann*”). For the reasons set forth below, the rejection should be withdrawn and the claims allowed.

Independent Claim 1

Independent Claim 1, as amended, recites:

1. A press fit fastener, comprising:
 - a shank having an axis a first end and a second end;
 - a head being located at the first end of said shank; and
 - a press fit portion being located at said shank, said press fit portion having an outer diameter and including a multiple helical profile, said multiple helical profile having fully formed multiple threads, each thread having at least one full thread revolution about the axis of said shank, ***said helical profile having a beginning portion and an inclination portion having an increasing outer diameter, the outer***

diameter of said inclination portion being designed to increase in a direction towards said head to reach a maximum outer diameter, the maximum outer diameter of said inclination portion being spaced apart from said head; and

a centering section having an outer diameter, said centering section being located next to said beginning portion of said helical profile, the outer diameter of said centering section being smaller than the minimum outer diameter of said helical profile in the beginning portion; and

a conical portion having an outer diameter, said conical portion being located next to said centering portion, said conical portion being designed and arranged to taper in a direction towards said second end such that the diameter of said conical portion increases towards said centering section.

(*Emphasis added*). Applicants respectfully submit that independent claim 1 patently defines over *Hartmann* for at least the reason that *Hartmann* fails to disclose, teach, or suggest the features emphasized in bold text above.

Applicants submit that many of the arguments set forth above with respect to the differences between claim 1 and *Damm* and/or *Waltermire* also apply to the differences between claim 1 and *Hartmann*, and these differences are not obvious over the disclosure of *Hartmann*.

For example, Applicants submit that claim 1 patently defines over *Hartmann* for at least the reason that *Hartmann* does not disclose, teach, or suggest the feature of “***a conical portion having an outer diameter, said conical portion being located next to said centering portion, said conical portion being designed and arranged to taper in a direction towards said second end such that the diameter of said conical portion increases towards said centering section***” as recited in claim 1.

At most, *Hartmann* discloses a “intermediate portion 13” near the beginning portion of the alleged helical profile. Even assuming, *arguendo*, that this could be argued to be a “centering section,” *Hartmann* does not disclose, teach, or suggest a “conical

portion located next to said centering section” as recited in claim 1. Using the centering portion with the conical portion serves to simplify axial insertion of the press fit fastener into a corresponding bore. These features can be particularly advantageous in combination with a fastener having the claimed multiple helical profile. Specifically, among other benefits, using the centering portion with the conical portion serves to simplify axial insertion of the press fit fastener into a corresponding bore.

Further, as previously set forth, Applicants respectfully maintain that *Hartmann* fails to disclose both of the claimed elements of a “beginning portion” and an “inclination portion.” That is, claim 1 includes these two distinct features, yet the Office Action continues to view these as a single portion. Thus, Applicants maintain that even assuming, *arguendo*, that the “beginning portion” is disclosed by *Hartmann*, any remaining portion does not meet the recited features of the “inclination portion.”

Accordingly, claim 1 patently defines over *Hartmann* for at least the additional and independent reason that *Hartmann* does not disclose, teach, or suggest the feature of an “***an inclination portion having an increasing outer diameter, the outer diameter of said inclination portion being designed to increase in a direction towards said head to reach a maximum outer diameter,***” as recited in claim 1.

Accordingly, for at least these reasons, Applicants submit that the rejection to claim 1 should be withdrawn and the claim allowed. Furthermore, because independent claim 1 patently defines over *Hartmann*, dependent claims 2 – 15 and 19 are allowable over *Damm* as a matter of law for at least the reason that claims 2 – 15 and 19 contain all the features and elements of their corresponding independent claim. See, e.g. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

V. Claims 8 and 11 are Patentable Over *Damm*

The Office Action rejected claims 8 and 11 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,645,386 to Damm ("*Damm*"). Applicants submit that the 35 U.S.C. § 103 rejection to claims 8 and 11 is rendered moot in light of any of the argument made above and, therefore, claims 8 and 11 are allowable as a matter of law for at least the reason that claims 8 and 11 contain all of the features and elements of their corresponding independent claim 1. For at least this reason, Applicants request that the rejection of claims 8 and 11 be withdrawn.

VI. Claim 14 is Patentable Over *Waltermire*

The Office Action further rejected claim 14 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 3,252,495 to Waltermire ("*Waltermire*"). Applicants submit that the 35 U.S.C. § 103 rejection to claim 14 is rendered moot in light of any of the argument made above and, therefore, claim 14 is allowable as a matter of law for at least the reason that claim 14 contains all of the features and elements of its corresponding independent claim 1. For at least this reason, Applicants request that the rejection of claim 14 be withdrawn.

VII. Prior Art Made of Record

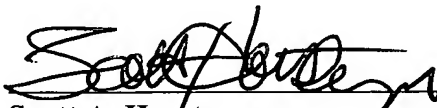
The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

Applicants expressly reserve the right to present non-elected claims, or variants thereof, in continuing applications to be filed subsequent to the present application. Should the Examiner have any questions regarding this response, The Examiner is invited to telephone the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this response. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,



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Stephanie Riley